

WHAT IS CLAIMED IS:

1. A method for forming homogeneous mixtures of powders of organic materials including at least one dopant component and one host component to provide a homogeneous mixture for use in thermal physical vapor deposition to produce an organic layer on a substrate for use in an organic light-emitting device, comprising:
 - a) combining organic materials, such materials including at least one dopant component and one host component;
 - b) providing a solvent with the organic materials to form a suspension of organic materials in the solvent;
 - c) mixing the suspension at a temperature sufficient to form a solution of the organic materials in the solvent; and
 - d) evaporating the solvent from the solution leaving a homogeneous mixture of organic powder.
2. The method of claim 1 further including:
 - (e) compacting the homogenous mixture of organic powders, to form a pellet suitable for thermal physical vapor deposition to produce an organic layer on a substrate for use in an organic light-emitting device.
3. The method of claim 1 wherein the dopant component varies between 0.1 and 20% by weight of the total mixture weight.
4. The method of claim 1 wherein the solvent is tetrahydrofuran and such solvent is added to the organic materials.
5. The method of claim 1 wherein the organic materials are added to the solvent.
6. The method of claim 4 wherein the solvent further includes dichloromethane.
7. The method of claim 1 wherein element (c) includes heating the solution at a temperature in a range between 50 and 100 ° Centigrade to evaporate the solvent.
8. The method of claim 1 wherein the suspension is mixed by a magnetic stirrer, a turbine stirrer, or an ultrasonic horn.

9. The method of claim 1 further including providing a controlled atmosphere for evaporation, wherein the controlled atmosphere is at a pressure in a range of 10^{-1} to 10^{-3} Torr causing the solvent to evaporate and form the homogeneous mixture of organic powder.

10. The method of claim 7 wherein the controlled atmosphere includes an inert gas such as nitrogen gas, argon gas or a mixture thereof.

11. The method of claim 2 wherein the homogeneous mixture of organic powder is compacted at pressures in a range of 3,000 to 20,000 pounds per square inch to form the pellet.

12. The method of claim 8 wherein the suspension is mixed by the ultrasonic horn at a frequency in a range of 10-30kHz.